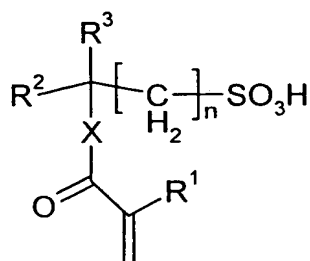


We claim:

1. An active compound formulation comprising
 - a) at least one active compound
 - b) at least one random radical copolymer formed from the monomers i), ii) and optionally additional monomers, in which
 - i) is at least one olefinically unsaturated sulfonic acid of the formula I

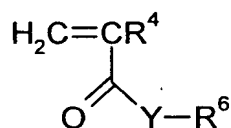


in which

- n is 0 to 10
 X is O or NR⁵
 R¹ is hydrogen or methyl
 R², R³ are, independently of one another, hydrogen or C₁-C₆-alkyl
 R⁵ is hydrogen, alkyl, aryl, alkylaryl, arylalkyl, alkoxyalkyl, aryloxyalkyl, alkoxyaryl, hydroxyalkyl, (di)alkylaminoalkyl, (di)alkylaminoaryl, (di)arylaminoalkyl, alkylarylaminomethyl, or alkylarylaminomethyl, it being possible for the aryl radicals to be substituted,

or salts thereof or mixtures of acid and salts, and

- ii) is at least one olefinically unsaturated monomer of the formula II



in which

- Y is O or NR⁵,
 R⁴ is hydrogen or methyl,
 R⁵, R⁶ are hydrogen, alkyl, aryl, alkylaryl, arylalkyl, alkoxyalkyl, aryloxyalkyl, alkoxyaryl, hydroxyalkyl, (di)alkylaminoalkyl, (di)alkylaminoaryl, (di)arylaminoalkyl, alkylarylaminomethyl, or alkylarylaminomethyl,

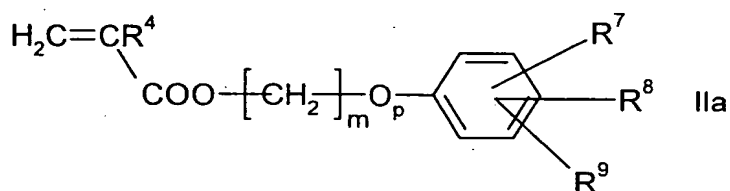
or alkylarylaminoaryl, it being possible for the aryl radicals to be substituted,

and

5 c) optionally additional additives.

2. The active compound formulation according to claim 1, wherein the at least one random radical copolymer is formed from

- 10 i) at least one olefinically unsaturated sulfonic acid of the formula I according to claim 1 or salts thereof or mixtures of acid and salts,
- ii) at least one (meth)acrylate of the formula IIa



15 in which

m is 0 to 4

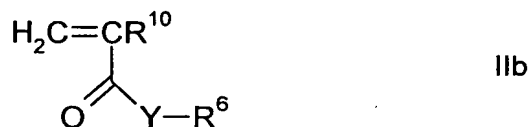
p is 0 or 1

R⁴ is hydrogen or methyl

20 R⁷, R⁸, R⁹ are hydrogen, C₁-C₆-alkyl, halogen, hydroxyl or C₁-C₆-alkoxy, it being possible for alkyl and alkoxy to be halosubstituted,

and

25 iii) optionally additional olefinically unsaturated monomers of the formula IIb



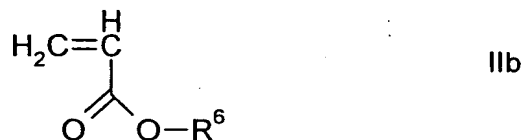
in which

Y is O or NR⁵,

R¹⁰ is hydrogen or methyl,

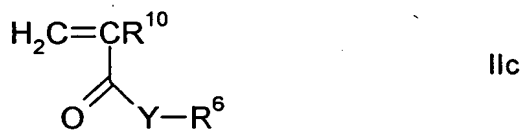
30 R⁵, R⁶ are hydrogen, alkyl, aryl, alkylaryl, arylalkyl, alkoxyalkyl, aryloxyalkyl, alkoxyaryl, hydroxyalkyl, (di)alkylaminoalkyl, (di)alkylaminoaryl, (di)arylaminomalkyl, alkylarylaminomalkyl or alkylarylaminomaryl, it being possible for the aryl radicals to be substituted.

3. The active compound formulation according to claim 1 or 2, with phenoxyethyl acrylate as monomer ii).
4. The active compound formulation according to claims 1 to 3, wherein the monomer i) is 2-acrylamido-2-methyl-1-propanesulfonic acid or a salt thereof or a mixture of acid and salt thereof.
5. The active compound formulation according to claim 1 or 4, wherein at least one olefinically unsaturated monomer ii) corresponds to the formula IIb,



in which R^6 is hydrogen, alkyl, aryl, alkylaryl, arylalkyl, alkoxyalkyl, aryloxyalkyl, alkoxyaryl, hydroxyalkyl, (di)alkylaminoalkyl, (di)alkylaminoaryl, (di)arylaminoalkyl, alkylarylaminoalkyl or alkylarylaminoaryl, it being possible for the aryl radicals to be substituted.

6. The active compound formulation according to claims 1 to 4, wherein the at least one random radical copolymer is formed from
- 2-acrylamido-2-methyl-1-propanesulfonic acid or salts thereof or a mixture of acid and salt thereof
 - phenoxyethyl acrylate
 - at least one olefinically unsaturated monomer of the formula IIc



in which Y is O
 R^{10} is hydrogen or methyl,
 R^5, R^6 are hydrogen, alkyl, aryl, alkylaryl, arylalkyl, alkoxyalkyl, aryloxyalkyl, alkoxyaryl, hydroxyalkyl, (di)alkylaminoalkyl, (di)alkylaminoaryl, (di)arylaminoalkyl, alkylarylaminoalkyl or alkylarylaminoaryl, it being possible for the aryl radicals to be substituted.

7. The active compound formulation according to claims 1 to 5, wherein the at least one random radical copolymer is formed from

- i) 2-acrylamido-2-methyl-1-propanesulfonic acid or salts thereof or a mixture of acid and salt, and
- ii) phenoxyethyl acrylate.

- 5 8. The active compound formulation according to claims 1 to 7, wherein the proportion of the sulfonic acid or of a salt or of a mixture of acid and salt in the total weight of the copolymer is 10 to 90 percent by weight.
- 10 9. The active compound formulation according to claims 1 to 8, wherein the proportion of the sulfonic acid or of a salt thereof or of a mixture of acid and salt in the total weight of the copolymer is 30 to 70 percent by weight.
- 15 10. The active compound formulation according to claims 1 to 9, wherein the ratio of the proportion by weight of component a) to the proportion by weight of component b) ranges from 1:10 to 10:1.
- 20 11. The active compound formulation according to claims 1 to 10, wherein the ratio of the proportion by weight of component a) to the proportion by weight of component b) ranges from 1:4 to 4:1.
- 25 12. The active compound formulation according to claims 1 to 11, wherein the ratio of the proportion by weight of component a) to the proportion by weight of component b) ranges from 1:2 to 2:1.
- 30 13. The active compound formulation according to claims 1 to 12, wherein component a) is a plant protection active compound.
- 35 14. The active compound formulation according to claim 13, wherein the at least one active compound is chosen from the group of the fungicides.
- 40 15. The active compound formulation according to claim 14, wherein the at least one active compound is chosen from the group of the strobilurins.
16. The active compound formulation according to claim 15, wherein the at least one active compound is pyraclostrobin.
17. The active compound formulation according to claims 1 to 16, in solid form.
18. The active compound formulation according to claims 1 to 16, in the form of a fluid solution comprising, if appropriate, additional additives.

19. The active compound formulation according to claims 1 to 16, in the form of an aqueous dispersion comprising, if appropriate, additional additives.
- 5 20. The active compound formulation according to claim 19, wherein the average particle diameter, determined by quasielastic light scattering, is less than 1 micrometer.
- 10 21. The active compound formulation according to claim 19 or 20, wherein the average particle diameter, determined by quasielastic light scattering, is less than 300 nanometers.
- 15 22. The active compound formulation according to claims 19 to 21, wherein the average particle diameter, determined by quasielastic light scattering, is less than 100 nanometers.
- 20 23. A process for the preparation of aqueous dispersions, which comprises bringing the active compound formulation according to claims 1 to 18, if appropriate with addition of one or more additives, into contact with an aqueous system and conventionally dispersing.
- 25 24. A process for the preparation of an active compound formulation according to claims 1 to 18, which comprises dissolving the components a) and b) and if appropriate c), and optionally additional additives, separately from one another, in identical or different organic solvents and mixing the solutions with one another or
preparing a combined solution of the components a) and b) and if appropriate c), and optionally additional additives, by presenting one of the components dissolved in an organic solvent, adding the additional components and dissolving, and optionally subsequently removing the solvent in a conventional way to the
30 greatest possible extent.
- 35 25. A process for the preparation of an active compound formulation according to claims 1 to 18, which comprises forming an aqueous solution of the component b), and optionally additional additives, dissolving the components a) and, if appropriate, c), and optionally additional additives, in one or more water-miscible organic solvents, mixing the solutions of the components with one another and obtaining the active compound formulation in dispersed form by introduction of energy, and optionally subsequently removing the solvents in the conventional way to the greatest possible extent.
- 40 26. A process for combating animal pests or harmful fungi, which comprises treating the pests or harmful fungi, their habitat or the plants, surfaces, materials or

spaces to be kept free therefrom with an effective amount of a formulation according to claims 13 to 21.

5 27. A process for combating undesirable vegetation, which comprises treating the undesirable plants and/or their habitat with a herbicidally effective amount of a formulation according to claims 13 to 21.

10 28. An active compound formulation comprising pyraclostrobin, wherein the average particle diameter, determined by quasielastic light scattering, is less than 1 micrometer, preferably less than 300 nanometers and particularly preferably less than 100 nanometers.